

THE  
*Nature of* Inoculation  
EXPLAINED,  
AND  
Its MERITS Stated;

IN  
An ESSAY, intended to supply what appeared  
still wanting to clear up that Subject.

AND WHEREIN  
The Nature of the Difference, between Inoculation and  
the Natural Small-Pox, is fully shewn; all Extremes  
in Opinion or Practice are avoided; and the true Use  
and best Manner of Preparation, from a Knowledge  
and Experience therein, of an earlier Date than what  
any, who have written on the Subject, pretend to, are  
declared; with a View to the general Good.

To which is added,

AN APPENDIX,  
CONTAINING  
Some Thoughts on the first Appearance of the  
SMALL-POX in the World, and an ADDRESS TO  
INOCULATORS and Others.

*Quamvis, Scama, satis per te tibi consulis, & scis,*

*Disce docendum adhuc, quæ censet amicus: ut si  
Cæcus iter monstrare velit, tamen aspice, si quid  
Et nos, quod cæcis proprium fecisse, loquamur.* HOR.

L O N D O N.

Printed for B. LAW, in Ave-mary-Lane; and  
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MDCCLXIX.

Nature's Occupation

WILLIAM

is MERITS

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LONDON  
1845





## P R E F A C E.

**A**S burlesque writing has of late taken place of sober enquiry, on the subject of inoculation; I doubt not its merits are so fully ascertained and established, in the opinion of some, as not to stand in need of farther examination. Some there are however who think otherwise. If I perchance should be of that number, may I be suffered a little in my folly; especially if, at the same time, I declare my sentiments candidly and honestly, and endea-

iv P R E F A C E.

vour to explain its nature more fully, than I find is already done to my hands, by any author. And let the gentlemen of wit take this friendly caution with them, To take care that, in the use of talents, allowed at best to be but dangerous, they do not unwarily stumble upon subjects, too important for their application. Let it be also considered, that it is but a mean and illiberal employment, to be the retailers of low jests. Can any thing equal the native beauty and dignity of truth, in her most simple dress? she is, in fact, a most delicate mistress, that must be wooed in her own way, and will not bear being laughed at and jeered to her face. For a while then raillery apart from  
disqui-

## P R E F A C E.

v

disquisitions in physic, for that is a part of truth.

The weakness and depravity of human judgment is in nothing more conspicuous, than the tendency it has of running into erroneous extremes. The bad effects of this unhappy propensity of carrying our prejudices, for favourite opinions and practice, too far, physic, in common with other subjects, has often felt; and it appears plainly to me, that the short-sightedness, whereby we examine only things present, and which is a grand cause of error in general, contributes not a little to our forming an erroneous judgment, in the matter before us. However, in enquiries after truth,  
a sub-



a subject which disclaims all imperfect notions, or partial representations, it is necessary the mind, under safe guidance, should take into its view, if possible, the whole that relates to a subject, and examine every thing with the deepest and most fixed attention.

Tho' several sensible and judicious writers seem to entertain very sanguine hopes, concerning the present method of inoculation, to whom, and to whose writings, I wish to pay all due deference; though, I hope, I also wish well to all methods, which truly conduce to the health and preservation of mankind, as well as have long known the importance of proper preparation,  
both

## P R E F A C E. . vii

both before the natural, and inoculated small-pox; yet sorry I am to say, I am obliged to consider the present reigning mode, on the whole; as one of those dangerous extremes, which will be productive of bad consequences, to the health of this, and succeeding generations. I must also, upon the principles and experience, hereafter to be laid down, go yet farther, and declare I am far from being so well satisfied about inoculation in general, as not to be aware, that it is a subject, which has never been well cleared up; that, tho' it is become pretty universal in England, it still wants the concurrence of many of the eminent in the profession, and of more of those abroad; the unprejudiced

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judiced opinion of any of which, if happily such are to be found, I think, deserves to be attended to.

There is somewhat of original rectitude, or its contrary, in most things, which discovers itself, to an impartial observer, at first sight. This testimony inoculation apparently wants, in an eminent degree; or it had become long since universal. And tho' the main argument, its present success, be strong in its favour; it is not infallible upon the principles and experience laid down in the following pages. I heartily wish I may be mistaken in my opinion, and that inoculation really may be that useful and salutary practice, I believe, many eminent



# P R E F A C E. ix

eminent in the profession, and others out of it, judge it to be. However, as that opinion is founded on observation and experience, and a long and close attention to the reason of things; till inoculation shall happily stand upon a better foundation, than present, perhaps transient success, I cannot help retaining it.

I am, at the same time, fully sensible, how ill such sentiments agree, with the notions entertained by the patrons of inoculation; especially by the warmer advocates for the present method. Nothing therefore should have induced me publicly to declare them, but the strongest persuasion of their truth; and an opinion, that it is the duty

x P R E F A C E

of a writer to declare truth, or the best apprehensions he has of it. I have therefore herein delivered my sentiments to the consideration of those, who, being persons of due temper, will coolly hear reason, on every side of an argument; and who, having also ability to trace back effects to causes, and to investigate diseases in their very principles and source, are the only persons qualified to judge; who, being endued with assiduity and application, will diligently observe not only present effects, but remoter consequences; and who, being also men of integrity and candour, will faithfully communicate such observations. By such, and such only, can the jarring opinions, relative to this subject,

ject, be at length determined. For my own part, my observations have been very unfavourable to it, at least in the light I have considered them. As it appears undeniably clear to me, that if inoculation, or any other cause, is capable of increasing hereditary or acquired scurvy, when also conjoined with the use of violent doses of mercurials, the present too common and pernicious use of warm relaxing liquors, or any species of intemperance which enfeebles the body; they will not fail to promote a decay, and a falling off, in this and each succeeding generation, from the pristine health and vigour of their ancestors.



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 their ancestors.



T H E  
NATURE of INOCULATION  
EXPLAINED, &c.

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SECTION I.

*Of the nature of variolous matter, its seat  
in, and effects on the blood.*

**V**ARIOLOUS matter is a pestilential *virus* \* *sui generis*, that, upon reception into the body, takes its seat in, and contaminates, that heterogeneous †  
part

\* Tho' this is a matter apparently beyond doubt, from the very nature of the disease, and especially its effects in the confluent kind; it is surprizing to find that few writers have been of this opinion, except Rhazes, the late Dr. Mead, and the present Dr. Ruston.

† I am sorry I cannot agree with Dr. Ruston, in opinion, that the variolous matter is apt to infect per-

part of the blood and juices, which is viscid; especially that which, by reason of taking unwholesome, or too much animal food, or any kind of high living, or by being retained long in the vessels, without being assimilated into a good and perfect state, is become putrescent; or tenacious and acrimonious, and therefore strictly scorbutical.

This taint in the humours may be either hereditary or acquired, and, it may be safely said, is almost always both. It serves for a nidus, wherein the variolous matter rests; and which it by degrees heats and corrupts, in the manner other perfectly assimilated juices; as then the heat and irritation, occasioned by mercurial medicines, would be pernicious. Their action upon heterogeneous matter, better accounts for the good effects of preparation thereby; as they are known to discharge such matter from the body. Besides, were the more perfect juices in general tainted, nature would have no resource left, whereby to separate the diseased humours from the body.

putrid



putrid effluviæ do; but has not power of the more pure, globular, and perfect part of the blood and juices, if the other heterogeneous corrupted part does not very much abound, and the constitution is capable of expelling it.

When the above described matter is so corrupted by the variolous virus, and, as it were, changed into its own nature; the subtle effluviæ arising therefrom stimulate the nerves, and rouse up that system, in proportion to the strength it has, or as the peccant matter may more or less abound, to endeavour at its expulsion.

When the matter then to be expelled, either by reason of natural health, temperance, or the power of preparation, is small, the disease is of the distinct kind; when large, of the confluent. And these, together with the effect a too rigid, relaxed, or due tone of the fibres, and the reigning constitution of the air, or the

climate, may have, seem to be the real causes, which occasion the variety in this disease; which does not arise from any difference in the variolous matter itself; as is abundantly proved by numberless instances, of persons receiving the most favourable small-pox, from the worst kinds thereof.

The above well accounts, why some persons are not liable, to take the small-pox, at all times; if it happens there is no heterogeneous corruptible matter in the body, at the time, for the effluvia to lodge in. As to the reason, why persons have the small-pox, or any such pestilential disorder but once; it is at present only resolvable, into the will of that merciful Providence, who presides over us. The cause of which will probably ever remain among those wonderful arcana, which human penetration may admire at a distance, but cannot search into.

S E C T.

## S E C T. II.

*Of the process of the disease in the natural  
small-pox, and its frequent beneficial effects,  
in those who recover.*

**W**HEN the morbid effluviæ from the corrupted matter above described, begin to be predominant, they irritate and distend the nerves, and bring on the known symptoms of the disease; pain in the head and back, sickness at the stomach, and an universal languor, &c. All the powers of the body rise to expel this dreadful enemy, and a fever commences: whereby the morbid matter is in some measure attenuated; but great part of it being still incapable of being secreted, by the general outlets of the body, and in particular by perspiration; yet withal too irritating and dangerous, to be retained any longer within; is determined however that way, viz. to the surface of the skin



skin \*, by one general and powerful effort. When therefore the matter to be so expelled is not abundant, nature performs this with more ease, and by a more gradual expulsion; when it predominates, if the strength is good, the attempt is more violent. Hence arises, some cases, depending on extraordinary weakness of the nerves, and visciditv of the juices, excepted, that usual difference in the period of eruption, which is a general criterion, whereby to judge of the mildness, or malignity of the disease.

When the eruption is compleated, nature still carries on her work, by a farther gradual attenuation and determination, of any remaining matter in the blood, to the pustules; bringing on hereby their matu-

\* It may be here observed, that miliary fevers arise from the same state of the humours without infection, and the same incapacity in nature to discharge them; wherefore antimonials and calomel, in such cases, lay the basis of a cure.

ration, which, when fully compleated, is the crisis of the disease. And the pustules, having attained that degree of perfection, by degrees harden and fall off, which terminates it.

In the natural small-pox then, the variolous effluviæ having taken full effect on the viscid, scorbutic, putrescent matter above described, as not having been drawn off by any partial discharge beforehand, nor its determination changed, the efforts of the constitution in expelling it, are powerful, uniform and regular, at least in good habits; and above all, natural: and, whatever we may pretend, nature is most perfect in her operations, when the obstacles to be surmounted are not very great; and all good physic depends upon a knowledge, and observance of her laws.

The good effects, attending the natural small-pox, are those of greatly lessening, nay, often of eradicating, not only  
acquired,

acquired, but hereditary scurvy, transmitted through preceding generations. An affair of great consequence to the health and well-being of succeeding ones! and this by a method, whereby alone it can be discharged. It is often got to such a degree of tenacity, as to be incapable of being secreted, by the emunctories of the body; not even by the action of a fever. In this disease it is determined to the surface of the body, and, in a peculiar manner, eliminated and discharged. Health succeeds, and that often to a degree inexperienced before.

Hereby nature has a chance of being restored to a state of perfection, in some measure adequate to its first state, with respect to purity of the blood. The consequence of which, with regard to the beneficial effects of health, to the persons themselves, and their posterity, I leave to the judicious to determine.

It



It cannot indeed be denied, that this disease sometimes makes dreadful havock, in those bodies, in whom, the before-mentioned viscid, putrescent, scorbutic matter predominates, especially in hot climates, and in constitutions of the air productive of putrid disorders; when, by reason of abounding untoward matter and the putrescence thereby occasioned, or when, on account of great weakness, nature cannot bring about, her main work, the maturation of the pustules. Nor that, when the disease does not prove fatal, there are wanting instances of imperfect recovery, where she does thus meet with such obstacles, that she cannot surmount. These are however no contradiction of the original rectitude of those laws, whereby the disease acts. And wise indeed must he be, who can find out any, respecting the reception and expulsion of diseases, superior, on the whole, to those which are original.

## S E C T. III.

*Of the process of the disease by inoculation, of the imperfect depuration generally attending it, and the effects and diseases that frequently follow.*

**I**N this method, the matter is indeed absorbed into the blood, by a wound made in the skin; but undoubtedly it is soon after also received in, by the breath likewise. For how is it possible, the effluvia of matter so contagious, which is also again discharged by the wound, and by which, the disease may, in the same manner, be communicated to others, should not be received in by the breath of the person, out of whose arm it issues? Be that as it may; the effort of nature, in expelling it, is here twofold. A determination is made of the matter, towards the wound, whereat it was received,

ceived, and also to the skin. Hereby is perverted that powerful and uniform determination of the matter of the disease, after one manner only, as in the natural small-pox. And certainly, the apparent difference, of inoculation, from the natural disease, consists in reducing the expulsive fever in the former, under that which would take place in the latter, in the same body, with the same quantity of heterogeneous, unhealthful matter, to be discharged; whether it arises, from thus baffling the effort of nature, by the double determination above-mentioned, the inflammation and discharge attending the wound beforehand, or any other cause.

The general consequence is imperfect depuration, even though the pustules that appear mature kindly; which, notwithstanding the person recovers, is productive of many bad consequences.



If there is any tolerable strength in the person, and the juices are not extraordinarily viscid, the first and most usual are imposthumations; or a tendency of diseased serous and lymphatic humours to the skin \*, which often degenerates into a most obstinate scorbutic disorder there.

If nature is not able to relieve herself in this way, scorbutic opthalmics ensue, which often endanger the sight; or the matter falls upon the lungs, and occasions obstructions in the glands of that organ, which by degrees end in a tabes; especially towards that critical term of life, when diseases of that kind are apt to take place, in young persons. In others a spitting of blood comes on, from the increased heat and rarefaction occesi-

\* I am far from thinking with some gentlemen, who practise inoculation, that it is good to avoid either of these consequences, in cases where it happens that nature has not properly relieved herself, by the preceding disease.

oned

oned therein, or erosions of the vessels brought on, by diseased, acrimonious humours, never properly discharged.

In women obstruction of the menses happens from the same cause, and strumous tumours in the glands of the breast are occasioned, which degenerate into cancers, at a certain period. These happen, where the matter described is apt to lye dormant, as it is generally inclined to do in weak, relaxed constitutions; and therefore, in children, I have known the king's evil succeed: for let it be remembered, that tho' relaxation of the glands be now considered, as the chief cause of that dreadful malady; viscosity is often a predisposing cause to relaxation, and always co-operates with it.

Now, though I am most ready to acknowledge, that inoculation is not to be considered as the sole cause of many of the disorders, which I have known soon consequent,

consequent, or could reasonably trace, therefrom; yet, I cannot, without flying in the face of my reason, but remark, that it must at least be considered as instrumental, by preventing the beneficial effects of a disease, so salutary in its nature in general, to those who recover from it.

These objections therefore lay against inoculation; even tho' the patients may have been treated after the most judicious manner. I have known these consequences happen, in those, who have been under the treatment of persons, of great reputed skill in this branch, as well as in my own patients. And so sensible I am of the bad effects of imperfect depuration of tenacious acrid matter, and especially that which is transmitted, that I will venture to declare, any disorder may arise therefrom, even, from a simple eruption on the skin, to the king's evil, cancers, consumption of the lungs, or the slow nervous



nervous fever and atrophy; in which the subtle diseased effluvia attack and prey upon the first principles of life.

Sorry I am to say it, and I wish I may be mistaken; but these appear to me to be the consequences of disturbing and perverting the order of nature in her operations, and aiming at a knowledge and power superior to that of the great Disposer of things; who does not view things in that partial, contracted light we do; but looks forward, and has, I am of opinion, ordered every disease, in regard to the manner of its reception and expulsion, so as to be best on the whole, and for the benefit of his creatures.

SECT.

## S E C T. IV.

*How far inoculation may be considered, as a succedaneum necessary to prevent the mortality of the small-pox; and what methods will bring it nearest to the standard of nature, in the natural disease of the distinct kind.*

**T**HOUGH I cannot approve of inoculation in the manner I could wish; it shall not be said I am not willing to lend assistance, from what knowledge I have therein, to bring it towards the best state, it is capable of attaining.

The best that can be said of inoculation is, that it is a means of preventing the mortality of the small-pox, which appears to be a very good plea for its use, when, on account of an unfavourable state of the air, we see numbers falling, on all sides of us, a sacrifice to its most fatal

fatal effects. But that it can be equal, in its beneficial effects, to the natural disease, in those who recover, unless it possibly may, in some cases, take a more natural turn, is, I apprehend, in its own nature, impossible. The laws of diseases were given with them, and the nearer we keep to those laws, on the safer ground do we tread.

Inoculation will be brought nearest, in its good effects, to the natural disease, by so preparing the body, by diet and medicine, as to overcome, in a good measure, the predisposing cause, viz. tenacious, acrid matter, to the bad effects the disease may have, without impairing the strength, or the least that is possible. This is dividing the two extremes of no preparation at all, or of one which has but little efficacy; and of another, which brings down the strength.



By a gradual, proper, alterative preparation, the blood will be reduced into such a state, by lessening and attenuating any tenacious humours therein, that the matter of the disease will be more easily separated from it; and by preserving also the strength, the effort of expulsion will be more lively and effectual.

No preparation, or one that is inefficacious, are often bad, as they leave the humours too viscid, and the body too oppressed, for the morbid matter to be well separated from the blood. Which disposition, if it should not occasion any bad symptoms, during the disease, will be in great danger of shewing itself afterwards, in the bad consequences before-mentioned.

Too much preparation, and violent doses of mercurials, are bad on the other hand, as thereby the strength is impaired, which is the chief instrument in expelling

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ling the disease. To which cause, with the heavy clog upon nature from the use of too much viscid diet, and the repulsion of the matter of the disease by cold air, are to be attributed the agues and putrid fevers, I have frequently observed consequent upon the modern method.

In the matter of preparation therefore, regard is to be had to the constitution of the person, both in respect of the solids and fluids; that the latter be not too tenacious, and thereby hinder the separation from the blood; and that the former may be in state sufficient, to give a lively and effectual impulse to the morbid matter, and to support the patient in the ensuing disease.

## S E C T. V.

*Of the best method of preparation, both before  
the natural and inoculated small-pox.*

**C**ALOMEL, according to the prediction of the great Boerhaave, is the grand corrector, not of the variolous virus, but of that predisposing cause, which occasions its most dreadful effects, and the basis of the medicines now in use.

This, were it not now almost universally known, I might have some right to determine; having seen the extraordinary effects of it, in a practice commencing so early as the year 1739, a period perhaps not many have a pretence to date from. I am therefore clear, that Dr. Ruston is right, in his experimental observations on Sutton's medicines; which is however, I believe, in general, not doubted.

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The method was at first tried on three young persons, who afterwards received the small-pox, in the natural way, and had a favourable distinct kind, succeeded by an uninterrupted state of health, for several years after recovery.

It was afterwards confined within the narrow limits of the persons own friends and patients, who first made use of it, and became the more confined, for want of that enterprizing and daring spirit, which characterizes the modern race of inoculators. It was however communicated to several not long after.

Calomel and calx of antimony, joined with cream of tartar and purgatives of the brisker kind, as jalap and scammony, were given as an alterative, in very small doses every morning, so as to move the bowels once daily, for a fortnight or three weeks before the natural disease; abstaining, at the same time, from flesh, and fermented, and other strong liquors; and

and going out daily, except in bad weather.

This method I have seen attended with very great success. It was made use of in preparation before the natural small-pox, in which it scarce ever failed of giving a distinct sort, when the regimen prescribed with it was regularly persisted in.

Its beneficial effects before inoculation, are also extraordinary, and I still think it one of the best that can be used for children, and young persons; but that small doses of calomel joined with emetic tartar, or a preparation of antimony like James's powder, taken two or three nights together, and then purged off with Glauber salt, repeating it at due distances, is preferable for adults; especially those of a robust constitution, and in the warmer seasons of the year \*.

\* This perfectly answers to Boerhaave's notion of the medicine, likely to correct, as he apprehended, the variolous virus.

In patients to be inoculated, I never continued the method longer than to the time of inoculation; which I thought most eligible, as it gave nature time to recruit, before the appearance of the disease, and for the heat and disturbance, occasioned by the mercurials, to subside. The original method however was to continue the medicines to the time of seizure; which may be in some cases necessary, when persons are not so strict, in the observance of regimen, as they ought to be.

Let it be here observed, that, as on the one hand, by this and other testimonies, it cannot be justly said, that mercurials have not an extraordinary use in preparation; and, as on the other, it has been objected, very justly, by Mr. Bromfield, that by the present use of them, in large doses, attended with a very lowering regimen, without sufficient regard paid to the constitution of the patient,

the



the strength is often too much depressed, and nature rendered unable to expel the disease, and perfect the maturation; that this method is a medium between both: and that a distinct pox by inoculation, expelled with ease, and coming kindly to maturation, as in the natural disease, is the almost infallible consequence of the use of it.

#### S E C T. VI.

*Of the general necessity of physical helps after inoculation, and which are the best of that kind.*

**N**Otwithstanding the favourable appearances above described, and the coming of the pustules kindly to maturity, yet from consequences which have followed, I am fully assured, that the work is not generally so well done, as in the natural way; and that though the enemy

enemy should lye dormant, and seem quiet for a while; yet that, if he is not thoroughly conquered, he will certainly rise again, and commit dreadful havock and devastation.

Let it be here remembered, that transmitted and acquired scurvꝝ, when joined to hereditary and acquired weakness, is to the body, what original sin is to the soul, and will not fail sooner or later to destroy it.

Means may be used to keep off and ward the blow. In the present case, issues continued in the inoculated parts, according to the old method, above all things will assist nature, and drain off any remaining matter, which is unfit for secretion, and has probably received an increase of acrimony, from the variolous virus. To these should be joined, the alterative method used in preparation for a short time; or crude antimony or some

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of its preparations with Æthiops mineral, and a course of purging mineral waters; at least in such cases, as give reason to suspect, that there is any scorbutical taint remaining behind.

# S E C T. VII.

*Of the good and bad effects of cold air, and other antiseptics, and the reasonable manner of using them; with some remarks on the present prevailing and peculiar method.*

**I**T must be allowed, that air is one of the greatest preservatives of the blood and juices from putrescence, while life subsists; but does it thence follow, that the promiscuous use of it, in so free a manner, in all cases, in all seasons, and in all periods of this disease, is therefore advisable? Air has a repellent action upon the surface of the body, as

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well



well as is endued with a preservative power. Therefore such indiscriminate and extraordinary use of it, as is too common with some, favours but too strongly of empiricism, to say no worse of it.

Is there nothing to be done, but, after a slight fever, to check nature in the beginning of her work, by cold air and antiseptics, and set aside maturation, her second intention, as a matter of no consequence? or is it possible mankind should be arrived at such total darkness of the understanding, in this, as is apprehended, most enlightened age, as to suppose they can trifle with and oppose original laws, without smarting severely for it?—This is not copying after the great father of physic, nor agreeable to his rules. For though it is the proper business of physic, to relieve nature, when oppressed, and lessen her efforts, when too violent; I do ask all who pretend to lay the least claim

to medical erudition, if any thing can be substituted with equal propriety, in the place of those known crises, whereby diseases are terminated?

The seeming recovery from the small-pox, is by no means a proof sufficient; unless it can be likewise proved, that there is no other disease that can be fatal. I have myself known putrid purgings, putrid fevers with sore throats, with inflammation of the lungs, and obstinate intermittents, following hard upon the heels of a celebrated method: Arising, I have the weakness to apprehend, from the rarified, putrid matter of the small-pox, unexpelled by maturation; the oppressive load upon nature, from viscid diet, joined with the relaxation brought on by large doses of mercurials.

I hope Dr. Dimsdale will not take it amiss, if I say, that the case he has so candidly related, in his treatise on the small-

small-pox, page 137, of the man who died of an apoplexy, upon recovery from inoculation, most probably arose from matter unexpelled, determined to and affecting the head; though under a treatment more judicious, than what I have above recited.

The public is greatly indebted to that gentleman, for communicating the good effects air and mercurial purges may have, in repressing the first fever of the confluent small-pox, in violent and dangerous cases. They undoubtedly lessen the putridity consequent in the following stages; and may, under judicious management, be a great means of preserving life.

The necessity also of circulating air through the chambers of the sick, in all stages of the disease, as well as of taking them, at times, out of bed, according to Sydenham's method; of even letting inoculated



oculated persons walk about the house in the warm season of the year; and indeed all methods of using air, agreeable to right reason and experience, are also abundantly apparent. But surely the indiscriminate use of it, in such degree, as is common, in all cases, in all stages of the disease, and in all seasons of the year, in this climate, is an extreme, which may be too justly stiled the madness and enthusiasm of modern physic! and to its account may be fairly set, those consequences before enumerated, as attendant on imperfect depuration of the blood,



The necessity of circulating air through the chambers of the sick, in all stages of the disease, as well as of taking them, at times, out of bed, according to Sydenham's method; of even letting in-  
oculated

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A P P E N D I X.

**I**T is pretty universally agreed, that the small-pox did not make its appearance very early in the world, as neither Hippocrates nor Celsus take any notice of it. If this is the case, and most probable it appears; as I will not allow that things of that kind happen in the world by chance, I cannot help forming this inference; that, at the time of its first appearance, there was a real necessity for it, either in a physical or moral sense, and most probably in both.

The former necessity could be occasioned by nothing else, than the increasing corruption of transmitted or acquired scurvy or impurity of the blood, and its  
mischievous

mischievous effects, arising from intemperance; and the latter, by degeneracy of manners.

In regard to the former, it is humbly conceived, that the most wise and merciful Disposer of things, would not have laid this severe scourge upon intemperance, without having still farther therein a merciful view, in the restoration and preservation of the human system to future ages, in that state of perfection, it is still seen, in a wonderful manner, capable of attaining in many instances; considering the many removes which have happened from that purity of blood, and that strength which were original.

That the small-pox, among other causes, has had a great share in this miraculous preservation and restoration, whereby the human system has been capable, like the phoenix, of often rising again, as it were, out of its own ashes,

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is not to be doubted. To this end, providence has appointed laws of an infallible propriety, respecting the manner of the reception and expulsion of diseases; wherewith, so far as men co-operate, they proceed right; as they resist, wrong. In the foregoing pages, I have already considered the matter of hereditary and acquired impurity of the blood, and what the small-pox has to do with it; at least, in the natural way.

The latter is perhaps a subject of too delicate a nature to touch upon, and may also appear foreign to the present purpose. Suffice it therefore to say, that, though it is certainly right to alleviate and take off any of the severe effects of diseases, so far at least as we can do it to good purpose; it is undoubtedly a great error, that the small-pox is now considered, as the only bugbear in the whole list of diseases, which, if people can but get over, they think they are safe. Whereas the

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mortality, attending the small-pox, makes but a small part in the general devastation occasioned by diseases. It is certainly wrong to instil into and encourage such notions, in young minds. Temperance is the surest guard against the bad effects of diseases in general, and of this in particular; for without regimen, preparation itself would avail but little.

Permit me now to address some very peculiar inoculators.

Let it be laid down as a fundamental rule for all honest men to proceed by, never to persuade any one into the use of inoculation. For, as the consequence is to them and theirs, it ought to be their own act, and they should be satisfied in their own minds, that what they are doing is right. This will be a sure means of avoiding reflections afterwards, and prevent that uneasiness I have been witness to, even where a celebrated method

thod has been succeeded by disagreeable consequences.

Much less let any presume to declare, there is no danger attending even the best methods, as long as they would claim a pretence to believe, that we are in the hands of providence. It also well deserves serious consideration, how far it may be right and humane, to turn patients loose, and thereby drive all people into the use of a method, in a manner, whether they will or not.

Let me also join with Mr. Bromfield in desiring, that if they have, at any time, found their method wrong, they would take the hint, alter it, and have regard not only to present, but future consequences. For, whether it is allowed or no, the following of putrid fevers, &c. on the heels of any method, is a shrewd sign of its insufficiency and inefficacy. It, in fact, requires more judgment, than



some are perhaps aware of, so to order things unnatural, as to answer the great purposes of the Author of nature.

If any thing herein written shall appear too harsh, or seem too hard to be digested by our frail nature; let it be attributed to that honest and generous warmth, which is due to subjects of an important kind. Let it also be remembered, that, out of regard to the lives of my fellow-creatures, I have allowed of inoculation, as a succedaneum to prevent the mortality of the small-pox, under proper restrictions, good management, and a respect to future consequences; though, I declare, I am not clear in my own mind, that it will be attended with good in general. For, if lingering evils be of all evils the worst, the point is nice to decide on, and of weighty concern. That I have communicated a method, which, notwithstanding the basis of it is now pretty universally known, has a peculiarity

arity belonging to it, in the manner of administration, that brings the effects of inoculation, nearest to those of the distinct natural kind, of any thing yet made known; and injures the stamina less, than the common method of administering mercurials.

As I plead a long and pretty considerable experience, though not so extensive as that of some others, as well as a strict attention paid to the subject, and a faithful relation of facts; let these pages be turned over and again, before any one rashly declares against what is therein contained. If people are determined to stick to their own shortsighted views, had any one the knowledge of the whole truth of this subject, it would not avail.

For my own part, having long revolved in my mind the sentiments, arising from reason and experience, herein contained, it would be just neither to myself or  
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others, totally to suppress them. Therefore, as the time now is of thoroughly examining this important subject, I have with fidelity declared them. And I heartily wish that method may take place, which will most conduce to the general good; which undoubtedly will be the case, if men will proceed upon firm and stable principles.



**F I N I S.**

